## AMENDMENTS TO THE CLAIMS

1. (Currently amended) A computing device containing ~~an application program interface (API) replay~~ a software tool for ~~creating and~~ submitting API calls ~~based upon input~~ corresponding to logged API ~~call records~~ calls to various components of the computing device, the ~~API replay~~ software tool comprising:

[[a]] symbol [[table]] tables for mapping memory references within ~~an input~~ logged API [[call]] calls with corresponding memory references within returns of logged API calls submitted by the software tool ~~record into a memory space allocated to the API replay tool~~, wherein the mapped memory references are used for submitting subsequent API calls corresponding to the logged API calls from within the memory space of the software tool to the various components of the computing device; and

an API call builder for creating an API call code sequence for ~~invoking an~~ submitting subsequent API [[call]] calls corresponding to ~~the input API call record, wherein memory references within the APT call code sequence are specified~~ logged API calls to the various components of the computing device according to ~~a set of mapping entries~~ the mapped memory references within [[the]] a symbol table.

2. (Currently amended) The ~~computer~~ computing device containing the ~~API replay~~ software tool of claim 1 further comprising:

a memory manager that maintains memory ~~blocks~~ space allocated to the software tool to simulate processes and threads associated with particular execution contexts for the [[input]] logged API ~~call records~~ calls.

3. (Currently amended) The ~~computer~~ computing device containing the ~~API replay~~ software tool of claim 2 further comprising:



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a thread handler for establishing a thread memory structure for allocating memory and resources of the computing device, by the memory manager, that corresponds to [[a]] each thread identified in the [[input]] logged API ~~call record~~ calls.

4. (Currently amended) The ~~computer~~ computing device containing the ~~API replay~~ software tool of claim 1 further comprising an execution template corresponding to binary files associated with the logged API calls for maintaining a set of resources from [[a]] the binary ~~associated with the input API call record~~ files.

5. (Currently amended) The ~~computer~~ computing device containing the ~~API replay~~ software tool of claim 4 wherein an API call executer issues the code sequence within a binary execution environment, including the set of resources[[,]] established by the execution template.

6. (Currently amended) The ~~computer~~ computing device containing the ~~API replay~~ software tool of claim 1 further comprising a replay engine for coordinating the operation of a set of handlers within the ~~API replay~~ software tool to render~~, from the input API call record, an~~ the subsequent API [[call]] calls to appropriate components of the computing device within a context defined by the ~~API replay~~ software tool.

7. (Currently amended) The ~~computer~~ computing device containing the ~~API replay~~ software tool of claim 6 wherein the set of handlers includes a callback handler for providing a callback destination for a callback function associated with the [[input]] logged API ~~call record~~.

8. (Currently amended) The ~~computer~~ computing device containing the ~~API replay~~ software tool of claim 1 wherein the memory references comprise pointers.

9. (Currently amended) The ~~computer~~ computing device containing the ~~API replay~~ software tool of claim 1 wherein the memory references comprise variables.



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10. (Currently amended) The ~~computer~~ computing device containing the ~~API replay~~ software tool of claim 1 wherein the code sequence comprises assembly code instructions.

11. (Currently amended) A method for ~~replaying~~ invoking API calls based ~~upon input~~ on logged API ~~call records~~ calls, the method comprising:

mapping memory references within ~~an input~~ logged API ~~call record~~ calls with corresponding memory references within returns of logged API calls invoked by a software tool ~~into a memory space allocated to an API call replay tool~~, wherein the mapped memory references are used for invoking subsequent API calls based on the logged API calls from within the memory space of the software tool; and

creating an API call code sequence for invoking [[an]] the subsequent API ~~call corresponding to~~ calls based on the [[input]] logged API ~~call record~~ calls, wherein the mapped memory references ~~within the API call code sequence~~ are specified ~~according to a set of mapping entries~~ for invoking the subsequent API calls.

12. (Currently amended) The method of claim 11 further comprising:

maintaining, by a memory manager, memory ~~blocks~~ space allocated to the software tool for simulating processes and threads associated with particular execution contexts for the [[input]] logged API ~~call records~~ calls.

13. (Currently amended) The method of claim 12 further comprising:

establishing, by the memory manager, a thread memory structure for allocating memory and resources corresponding ~~that corresponds~~ to [[a]] each thread identified in the [[input]] logged API ~~call record~~ calls.

14. (Currently amended) The method of claim 11 further comprising:



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maintaining, by an execution template corresponding to binary files associated with the logged API calls, a set of resources from [[a]] the binary ~~associated with the input API call record~~ files.

15. (Currently amended) The method of claim 14 further comprising:

issuing, by an API call executer, the API call code sequence within a binary execution environment, including the set of resources[[,]] established by the execution template.

16. (Original) The method of claim 11 wherein the memory references comprise pointers.

17. (Original) The method of claim 11 wherein the memory references comprise variables.

18. (Original) The method of claim 11 wherein the API call code sequence comprises assembly code instructions.

19. (Currently amended) A computer-readable storage medium including computer-executable instructions ~~facilitating replaying~~ for invoking API calls based ~~upon input~~ on logged API ~~call records~~ calls to various components of a computing device, the computer-executable instructions performing the steps of:

mapping memory references within ~~an input~~ logged API ~~call record into a memory space allocated to an API call replay tool~~ calls with corresponding memory references within returns of logged API calls invoked by a software tool, wherein the mapped memory references are used for invoking subsequent API calls based on the logged API calls from within the memory space of the software tool; and

creating an API call code sequence for invoking [[an]] the subsequent API ~~call corresponding to~~ calls based on the [[input]] logged API ~~call record~~ calls, wherein the mapped



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memory references ~~within the API call code sequence~~ are specified for invoking the subsequent API calls ~~according to a set of mapping entries~~.

20. (Currently amended) The computer-readable storage medium of claim 19 further comprising computer-executable instructions performing the steps of:

maintaining, by a memory manager, memory ~~blocks~~ space allocated to the software tool for simulating processes and threads associated with particular execution contexts for the [[input]] logged API ~~call records~~ calls.

21. (Currently amended) The computer-readable storage medium of claim 20 further comprising computer-executable instructions performing the steps of:

establishing, by the memory manager, a thread memory structure ~~that corresponds~~ for allocating memory and resources corresponding to [[a]] each thread identified in the [[input]] logged API ~~call record~~ calls.

22. (Currently amended) The computer-readable storage medium of claim 19 further comprising computer-executable instructions performing the steps of:

maintaining, by an execution template corresponding to binary files associated with the logged API calls, a set of resources from [[a]] the binary ~~associated with the input API call record~~ files.

23. (Currently amended) The computer-readable storage medium of claim 22 further comprising computer-executable instructions performing the steps of:

issuing, by an API call executer, the API call code sequence within a binary execution environment, including the set of resources[[,]] established by the execution template.

24. (Currently amended) The computer-readable storage medium of claim 19 wherein the memory references comprise pointers.



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25. (Currently amended) The computer-readable storage medium of claim 19 wherein the memory references comprise variables.

26. (Currently amended) The computer-readable storage medium of claim 19 wherein the code sequence comprises assembly code instructions.



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